Individual Proposal Report

Title: Assessment of Organic Matter in the Habitat and its Relationship to the Food Chain (J3)

Geographic Area: Landscape

Primary Stressor Addressed: Water Quality

Project Type: Research

Applicant Type and Name: Federal. U.S. Geological Survey, James Cloern, (415) 329-4594.

Funding: The applicant has requested $1,400,000 for a three-year project. The first year has been funded with 1997 Category III monies. It is recommended that the remainder of the project, $883,000, be funded with 1998 monies.

Cost Share: The USGS will provide a total of $746,827 during the life of the project.

Project Description: The project is based on the premise that the capacity of Delta habitats to sustain populations of upper-trophic-level organisms is partly dependant upon the quantity and quality of the food resource available to the lower-trophic-level organisms. The importance of food transfers between the lower and upper trophic levels has been recognized implicitly in much of the work done in the Bay-Delta. However, large gaps remain in understanding the sources, chemical forms, and variability of organic matter. This project provides a focused assessment of the capacity of different Delta habitats to support the nutritional requirements of the invertebrate biota that sustain population at the upper-trophic-levels.

ERPP Linkage: The proposal meets the goals of the Ecosystem Restoration Program Plan (CALFED, Volume II, 28 July 1997) as it should provide the necessary knowledge to increase primary and secondary nutrient productivity in the Delta to levels historically observed in the 1960's and early 1970's (page 42), increase the abundance of marine/estuarine fish and large invertebrates, particularly in dry years (page 63), and increase populations and distribution of important foodweb organisms in Delta channels and reduce competition with invasive non-native species (page 64).

AFRP Linkage: This proposal contributes toward making all reasonable efforts to at least double natural production of anadromous fish as it supports the following evaluation listed in the Revised Draft Restoration Plan for the Anadromous Fish Restoration Program (USFWS, 30 May 1997): Evaluate the potential effects of reductions in food chain organisms in the Delta and Suisun Bay on anadromous fish production (Sacramento-San Joaquin Delta Evaluation 10, page 106).

Applicant's Proposed Monitoring: Monitoring is an integral component of this project. CALFED staff will review the proposed monitoring plan and revise as necessary.